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AGREEMENT

CONCERNING THE ADOPTION OF UNIFORM CONDITIONS OF APPROVAL AND RECIPROCAL RECOGNITION OF APPROVAL FOR MOTOR VEHICLE EQUIPMENT AND PARTS

done at Geneva on 20 March 1958

Addendum 27: Regulation No. 28

Amendment 2

Incorporating:

Supplement 2 to this Regulation in its original version (00)
Date of entry into force: 8 January 1991

Corrigendum 1 to Supplement 2 to 00 referred to in the depositary notification C.N.95.1992.TREATIES-10 of 16 June 1992

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF AUDIBLE WARNING DEVICES AND OF MOTOR VEHICLES WITH REGARD TO THEIR AUDIBLE SIGNALS

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Paragraph 1, amend to read:

"1. SCOPE

This Regulation applies to:

1.1. audible warning devices (AWD), 1/ supplied with direct or alternating current or compressed air, which are intended for fitting to motor vehicles of categories L3 to 5, M and N, excluding mopeds (categories L1 and L2) 2/

1.2. the audible signals 3/ of motor vehicles listed in 1.1.

1/ An AWD consisting of several sound outlets activated by a single power unit shall be regarded as an AWD.

2/ As defined in the Consolidated Resolution (R.E.3) (TRANS/SC1/WP29/78).

3/ An AWD consisting of several units, each emitting a sound signal and operated simultaneously by the actuation of a single control shall be regarded as an audible warning system."

Paragraph 2, amend to read:

"... audible warning devices (AWD) of ..."

Add a new paragraph 2.3 to read:

"2.3. type of electrical supply (direct or alternating current);"

and renumber existing paragraphs.

Add a new paragraph 2.10 to read:

"2.10. The AWD is principally intended for:

2.10.1. motor cycles of a power less than or equal to 7 kW (class I)

2.10.2. vehicles of categories M and N and motor cycles of a power greater than 7 kW (class II)"

Add a new paragraph 3.4 to read:

"3.4. The competent authority shall verify the existence of satisfactory arrangements for ensuring effective control of the conformity of production before type approval is granted."

Paragraph 5.3, amend to read:

"... rated voltage, rated frequency or frequencies ..."

Paragraph 5.4, amend to read:

"Notice of approval or refusal or extension or withdrawal of approval or production definitely discontinued of a type ..."

Add a new paragraph 5.5.3 to read:

"5.5.3. an additional symbol in the form of a figure in Roman numerals, showing the class to which the AWD belongs."

Paragraph 5.6, amend to read:

"The approval mark and the additional symbol must be clearly legible and indelible."

Add to paragraph 6.1.1:

"For warning devices supplied with alternating current, this requirement shall apply only at constant generator speed, within the range specified in paragraph 6.2.3.2."

Paragraph 6.2.3, amend to read:

"6.2.3. The AWD shall be supplied with current, as appropriate, at the following voltages:

6.2.3.1. in the case of AWDs supplied with direct current, at one of the test voltages of 6.5, 13 or 26 volts measured at the terminal of the electric power source and corresponding respectively to rated voltages of 6, 12 or 24 volts;

6.2.3.2. in the case of AWDs supplied with alternating current, the current shall be supplied by an electric generator of the type normally used with this type of AWD. The acoustic characteristics of the AWD shall be recorded for electric generator speeds corresponding to 50%, 75% and 100% of the maximum speed indicated by the manufacturer of the generator for continuous operation. During this test, no other electrical load shall be imposed on the electric generator. The endurance test described in paragraph 6.3 shall be carried out at a speed indicated by the manufacturer of the equipment and selected from the above range."

Paragraph 6.2.4, amend to read:

"If a rectified current source is used for the test of an AWD supplied with direct current, ..."

Paragraph 6.2.5, amend to read:

"For AWDs supplied with direct current, the resistance ..."

Paragraph 6.2.7, amend to read:

"6.2.7. Under the conditions set forth above, the sound-pressure level weighted in accordance with curve A shall not exceed the following values:

(a) 115 dB(A) for AWDs intended principally for motor cycles with a power less than or equal to 7 kW;

(b) 118 dB(A) for AWDs intended principally for vehicles of categories M and N, and motor cycles with a power greater than 7 kW.

6.2.7.1. In addition, the sound-pressure level in the frequency band 1,800 to 3,550 Hz shall be greater than that of any component of a frequency above 3,550 Hz and in any event equal to or greater than:

(a) 95 dB(A) for AWDs intended principally for motor cycles with a power less than or equal to 7 kW;

(b) 105 dB(A) for AWDs intended principally for vehicles of categories M and N, and motor cycles with a power greater than 7 kW.

6.2.7.2. AWDs meeting the sound characteristics mentioned in (b) may be used on the vehicles mentioned in (a)."

Paragraph 6.2.8, amend to read:

"... with the supply voltage varying between 115% and 95% of its rated voltage for AWDs supplied with direct current or, for AWDs supplied with alternating current, between 50% and 100% of the maximum speed of the generator indicated by the manufacturer for continuous operation."

Paragraph 6.3.1, amend to read:

"6.3.1. The AWD shall be supplied with current at the rated voltage and with the connecting lead resistances specified in paragraphs 6.2.3. to 6.2.5. above, and operated, respectively:

10,000 times for AWDs intended principally for motor cycles with a power less than or equal to 7 kW

50,000 times for AWDs intended principally for vehicles of categories M and N and motor cycles with a power greater than 7 kW,

each time for one second followed by an interval of four seconds. During the test, the AWD shall be ventilated by an air current having a speed of approximately 10 m/sec."

Paragraph 6.3.4, amend to read:

"6.3.4. If, after the AWD has been operated for half the number of times prescribed, the sound-level characteristics are no longer the same as before the test, the AWD may be adjusted. After being operated the prescribed number of times, and after further adjustment if necessary, the AWD must pass the test described in paragraph 6.2. above."

Paragraph 7, amend title to read:

"... AND EXTENSION OF APPROVAL"

Add a new paragraph 7.3 to read:

"7.3. The competent authority issuing the extension of approval shall assign a series number to each communication form drawn up for such an extension."

Paragraph 8, amend to read:

"8. CONFORMITY OF PRODUCTION

8.1. Every AWD approved to this Regulation shall be so manufactured as to conform to the type approved by meeting the requirements set forth in paragraph 6 above.

8.2. In order to verify that the requirements of paragraph 8.1. are met, suitable controls of the production shall be carried out.

8.3. The holder of the approval shall in particular:

8.3.1. ensure existence of procedures for the effective control of the quality of products,

8.3.2. have access to the control equipment necessary for checking the conformity to each approved type,

8.3.3. ensure that data of test results are recorded and that annexed documents shall remain available for a period to be determined in accordance with the administrative service,

8.3.4. analyse the results of each type of test, in order to verify and ensure the stability of the product characteristics making allowance for variation of an industrial production,

8.3.5. ensure that for every type of AWD sufficient checks are carried out so as to ensure that all AWDs in production comply with the specifications given for the AWD submitted for type approval,

8.3.6. ensure that any sampling of samples or test pieces giving evidence of non-conformity with the type of test considered shall give rise to another sampling and another test. All the necessary steps shall be taken to re-establish the conformity of the corresponding production.

8.4. The competent authority which has granted type-approval may at any time verify the conformity control methods applicable to each production unit.

8.4.1. In every inspection, the test books and production survey records shall be presented to the visiting inspector.

8.4.2. The inspector may take samples at random which will be tested in the manufacturer's laboratory. The minimum number of samples may be determined according to the results of the manufacturer's own verification.

8.4.3. When the quality level appears unsatisfactory or when it seems necessary to verify the validity of the tests carried out in application of paragraph 8.4.2., the inspector shall select samples to be sent to the technical service which has conducted the type approval tests.

8.4.4. The competent authority may carry out any test prescribed in this Regulation.

8.4.5. The normal frequency of inspections authorized by the competent authority shall be one per year. In the case where negative results are recorded during one of these visits, the competent authority shall ensure that all necessary steps are taken to re-establish the conformity of production as rapidly as possible."

Paragraph 13.3, amend to read:

"... or extension or withdrawal of approval or production definitely discontinued of a vehicle type pursuant to this Regulation ..."

Add new paragraph 13.9 to read:

"13.9. The competent authority shall verify the existence of satisfactory arrangements for ensuring effective control of the conformity of production before type approval is granted."

Paragraph 14.1, add a new sentence to read:

"Audible warning devices of Class II approved under this Regulation in its original form, and therefore not bearing the symbol II in their approval mark, may continue to be fitted to vehicle types submitted for approval pursuant to this Regulation."

Paragraph 14.4, amend to read:

"... on ground as smooth as possible and, in the case of devices supplied with direct current, with its engine stopped."

Paragraph 14.8, amend to read:

"14.8. Measured under the conditions specified in paragraphs 14.2. to 14.7., the maximum sound-pressure level (14.7.) of the audible signal tested shall be at least:

(a) equal to 83 dB(A) and not more than 112 dB(A) for the signals of motor cycles of a power less than or equal to 7 kW;

(b) equal to 93 dB(A) and at most 112 dB(A) for the signals of vehicles of categories M and N 1/ and motor cycles of a power greater than 7 kW."

Amend title of paragraph 15 to read:

"MODIFICATIONS OF VEHICLE TYPE AND EXTENSION OF APPROVAL"

Add a new paragraph 15.3 to read:

"15.3. The competent authority issuing the extension of approval shall assign a series number to each communication form drawn up for such an extension."

Paragraph 16, amend to read:

"16. CONFORMITY OF PRODUCTION

16.1. Every vehicle approved pursuant to this Regulation shall be so manufactured as to conform to the type approved by meeting the requirements set out in paragraph 14 above.

16.2. In order to verify that the requirements of paragraph 16.1. above are met, appropriate checks on production shall be carried out.

16.3. The holder of the approval shall in particular:

16.3.1. ensure existence of procedures for effective control of the quality of the vehicles as regards all aspects relevant to compliance with the requirements set out in paragraph 14 above,

16.3.2. ensure that for every type of vehicle sufficient checks are carried out regarding the number and type of AWD, so as to ensure that all vehicles in production comply with the specifications given of the vehicle submitted for type approval,

16.3.3. ensure that, if the checks carried out pursuant to paragraph 16.3.2. above give evidence of non-conformity of one or more vehicles with the requirements set out in paragraph 14 above, all necessary steps are taken to restore conformity of the corresponding production.

16.4. The competent authority which granted type-approval may at any time verify the conformity control methods applied for each production unit. The authority may also carry out any random checks on serially-manufactured vehicles in respect to the requirements set out in paragraph 14 above.

16.5. Where unsatisfactory results are found during verifications and checks pursuant to paragraph 16.4. above, the competent authority shall ensure that all necessary steps are taken to restore conformity of production as rapidly as possible."

Annex 1 and Annex 2:

Under "Communication concerning" insert "extension of approval."

Add: "Extension No." on line with "Approval No."

and amend last paragraph to read:

"A list of documents contained in the approval file transmitted to the administrative service which has granted approval is annexed to this communication."

Annex 3:

Insert above symbol: "I"

and amend text to read: "... this AWD of Class I has ..."